

XIII. *Report on the Diptera collected by the British Ornithologists' Union Expedition and the Wollaston Expedition in Dutch New Guinea. By F. W. EDWARDS, B.A., F.E.S. With a Section on the Asilidae by E. E. AUSTEN, F.Z.S.**

[Received January 14, 1915; Read March 9, 1915.]

[PLATE XXXVIII.]

INDEX.

Systematic:	Page		Page
<i>Sciara ponderosa</i> Walker, redescription ..	391	<i>Maira nitida</i> Austen, sp. n.	400
<i>Tipula de-meijerei</i> , sp. n.	393	<i>Promachus raptor</i> Austen, sp. n.	402
<i>Ptilocera violacea</i> , sp. n.	394	" <i>noscibilis</i> Austen, sp. n.	403
<i>Ptilocera</i> , revision of genus	395	<i>Dissoptera pollinosa</i> , gen. et sp. n.	410
<i>Ptecticus atritarsis</i> , sp. n.	396	<i>Phytalmia ? wollastoni</i> , sp. n.	418
<i>Chrysopilus binoculatus</i> , sp. n.	397	<i>Ortaloptera cleitamina</i> , gen. et sp. n. . .	419, 420
<i>Maira wollastoni</i> Austen, sp. n.	398	<i>Rioxa flava</i> , sp. n.	421

THE preparation of the following report was at first entrusted to my colleague, Mr. E. E. Austen, but shortly after commencing the work he responded to the call of military duty, and I have therefore reluctantly undertaken to complete a task for which Mr. Austen is far better qualified.

The collection is not a large one, comprising only 80 species, but so little have the New Guinea flies been worked at that no fewer than twelve of these have had to be described under new names, two of them apparently representing new generic types. Eight or ten of the remaining 68 also appear to be at present unnamed, but, being represented merely by single specimens, not always in the best of condition, and belonging to groups whose classification is a matter of no little difficulty, I have refrained from describing them.

Family SCIARIDÆ.

Genus SCIARA.

Sciara Meigen, Illiger's Mag. ii. p. 263 (1803).

1. SCIARA PONDEROSA.

Sciara ponderosa Walker, Proc. Linn. Soc. London, vii. p. 230 (1864).

1 ♀. Mimika River, Aug. 1910.

The species was previously represented in the British Museum Collection by

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Walker's type, a female from North Ceram. It is a large and well-marked species with dull thorax, reddish humeri, and an entirely reddish abdomen, points which were not mentioned by Walker in his useless description. It belongs to Winnertz's group I. A. 1. B. *a*. The media and cubitus are quite bare.

Family BIBIONIDÆ.

Genus PLECIA.

Plecia Wiedemann, Aussereurop. zweifl. Ins. i. p. 72 (1828).

2. PLECIA FULVICOLLIS.

Hirtea fulvicollis Fabricius, Syst. Anth. p. 53 (1805).

Plecia fulvicollis de Meijere, Nova Guinea, Zool. v. i. p. 68 (1906), and ix. iii. p. 306 (1913).

1 ♀. Utakwa River, 3000 ft., Jan. 1913.

This species, which is common and widely distributed in the Oriental and Australasian regions, has already been recorded from several localities in New Guinea. The British Museum possesses specimens from Sarawak, Borneo, and the Aru Islands (*A. R. Wallace*), also from Sumatra (*A. H. Everett*) and India.

Family CHIRONOMIDÆ.

Genus CHIRONOMUS.

Chironomus Meigen, Illiger's Mag. ii. p. 260 (1803).

3. CHIRONOMUS sp.

Cf. *Chironomus novæguineensis* de Meijere, Nova Guinea, v. i. p. 69 (1906).

1 ♂. Mimika River, July 1910.

Differs from de Meijere's species in the absence of the blackish marks on the abdomen, but it does not seem advisable to describe it as a new species on the basis of a single specimen.

Family TIPULIDÆ.

Subfamily Limnobiinæ.

Genus DAPANOPTERA.

Dapanoptera Westwood, Trans. Ent. Soc. London, p. 365 (1881).

4. DAPANOPTERA PALLIDA.

Dapanoptera pallida de Meijere, Nova Guinea, ix. iii. p. 307 (1913).

1 ♀. Utakwa River, 4000-6000 ft., Jan.-Feb. 1913.

The species was described by de Meijere from two males from Alkmaar, New Guinea, which had the wings "whitish brown-yellow" and the legs brown. The specimen before me is a good deal darker, the wings being brownish-orange and the legs black. There can, however, be little question of its identity.

Subfamily Tipulinæ.

Genus TIPULA.

Tipula Linné, Syst. Nat. ed. x. p. 585 (1758).

5. TIPULA DE-MEIJEREI, sp. n. (Pl. XXXVIII. fig. 1.)

1 ♀. Upper Utakwa Valley, 5000-10,000 ft., Feb.-March 1913. (*Type of the species.*)

Head dark brown on the vertex, orange-brown on the front; two rounded tubercles just above the base of the antennæ; proboscis brownish, darker apically, about as long as the head. Palpi black. Antennæ thirteen-jointed, first joint dark brown, hairy; second joint yellowish; third joint yellowish, dark brown in the middle; joints 4-12 black basally and yellow apically, the black basal portion slightly enlarged and bearing several bristles; last joint roundish, entirely black. *Thorax*: mesonotum light brownish, with four faintly indicated slightly darker stripes, and with a dark brown margin; postnotum and postalar calli deep blackish-brown; pleuræ rather light brown. *Abdomen* rather dark brown, with a slight reddish tinge; second segment with a narrow blackish lateral line; ovipositor light brown, longer than the seventh and eighth segments taken together. *Legs* dark brown, the tarsi somewhat darker. *Wings* brownish-tinged, the costal cell more yellowish, stigma dark brown; a subquadrangular brown spot lying between the veins Cu and An about halfway along the lower basal cell, the wing-membrane on each side of this spot clearer; brown clouds over Cu₂ and the ascending portion of Cu₁ and between the veins on the apical half of the lower margin of the wing; a pale spot just above the vein Cu near the apex of the lower basal cell; pale spots at the bases of cells M₁ and M₂. *Halteres* black.

Length of body 25 mm., of wing 27 mm.

This well-marked species bears some resemblance to the European *T. fulvipennis* Deg., and has evidently very much in common with a specimen described (but not named) by de Meijere from Java (Tijd. v. Ent. liv. 1911, p. 71). Apparently, however, the Javan specimen must represent another species of the same group.

Family STRATIOMYIIDÆ.

Subfamily Pachygastrinæ.

Genus EVAZA.

Evaza Walker, Proc. Linn. Soc. London, i. p. 109 (1857).

6. EVAZA IMPENDENS.

Nerna impendens Walker, Proc. Linn. Soc. London, iv. p. 97 (1860).

Evaza impendens Kertész, Ann. Mus. Nat. Hung. iv. p. 282 (1906).

1 ♀. Mimika River, July 1910.

This specimen agrees well both with Walker's type and Kertész's description, except that the thorax is scarcely at all shining. There appears to be no difference in the punctuation of the thorax, however, so that the specific identity of our specimen with *E. impendens* is quite probable. The species is known from Celebes and the Aru Islands.

Genus PTILOCEEA.

Ptilocera Wiedemann, Nova Dipt. Gen. p. 7 (1820).

7. PTILOCEEA VIOLACEA, sp. n. (Pl. XXXVIII. figs. 2 a, 2 b.)

2 ♀. Mimika River, July 1910. (*Type and paratype of the species.*)

Also 2 ♂, 1 ♀ in the British Museum Collection from the Aru Islands (*A. R. Wallace*).

♀. *Head*: front much excavated between the antennæ and the ocelli; shining black, except for a small reddish patch just above the antennæ and a pair of small roundish silvery-pollinose patches at the margins of the eyes. Face shining black, clothed with short white pubescence except on the central knob. Antennæ with the basal joint black, cylindrical; second, third, and fourth joints reddish (in one specimen the second joint is blackish), these three joints each much deeper than they are long and together forming a sub-circular disc; appendage of the fourth and lower appendage of the fifth joints reddish, the remainder of the antennæ black, except the extreme tip, which is whitish. *Thorax* with four stripes of small iridescent scales which are either emerald-green or purple according to the direction of the light; the outer and inner pairs are connected together at the front margin and again on the scutellum, but the middle of the scutellum is without scales. *Abdomen* somewhat shining, metallic blue; small lateral longitudinal patches of white pubescence on the second and third segments, fourth segment with a pair of transverse patches of similar pubescence, which do not quite meet in the middle; hind margin of the fourth segment with a simple emargination. *Legs*: femora and tibiæ blackish, somewhat shining, with inconspicuous pale pubescence; tarsi dark brown to yellowish

(darkest on the front legs), with rather dense and conspicuous whitish pubescence. *Wings* strongly infuscated; a more or less distinct, outwardly oblique, transparent fascia extending from the stigma across the apex of the discal cell; the membrane surrounding the lower branch of the fifth longitudinal vein is transparent, but the greater part of the anal and axillary cells are infuscated.

♂. Antennæ coloured as in the female, except that there is no trace of white at the tip; the second, third, and fourth joints are much smaller, very little deeper than long; the tenth (last) joint has a conspicuous kink at its base. The thorax is much darker, the bands of scales being hardly noticeable. The pubescence of the abdomen is yellow instead of white, and there is an interrupted transverse band of pubescence on the third segment as well as on the fourth.

Length of ♀ 10 mm., of ♂ 8–9 mm.

This species much resembles *P. smaragdifer* Walker (= *smaragdina* Sn. v. Voll.), but the latter differs in the following particulars:—In the female *P. smaragdifer* the second, third, and fourth antennal joints are of quite a different shape, and there is no trace of white at the tip of the antennæ; the scutellum is entirely covered with scales; the third abdominal segment has a transverse band of pubescence, and the fourth has a double instead of a simple emargination of its hind margin. The chief noticeable differences between the males of *P. smaragdifer* and *P. violacea* is that the former have no kink at the base of the last antennal joint.

In the British Museum there are four species of the genus *Ptilocera* which in the female sex are readily distinguishable as follows:—

1. Last joint of antennæ very largely white; anal and axillary cells mainly transparent. (Oriental Region.) 2.
- Last joint of antennæ entirely or almost entirely black; anal and axillary cells mainly infuscated. (Australasian Region.) 3.
2. Thorax with a conspicuous golden-green patch on each side in front *quadridentata* F.
- Thorax with four violet-green stripes *continua* Wlk.
3. Antennal joints 2–4 twice as deep as long *violacea*, sp. n.
- Antennal joints 2–4 not much deeper than long *smaragdifer* Wlk.

Walker's type of *P. smaragdina* is evidently conspecific with his *P. continua*, and *P. fastuosa* Gerst. is also the same species; so, I believe, is *P. amethystina* Snell. v. Voll. The specimens recorded by Walker from Celebes as *P. smaragdina* are really *P. smaragdifer*. *P. smaragdina* Snell. v. Voll. is evidently identical with *P. smaragdifer* Walker, but, the former name having been used previously by Walker, cannot be applied to the Celebes form, even though the original *P. smaragdina* is synonymous with *P. continua*.

Subfamily Geosarginæ (*Sarginæ*).

Genus PTECTICUS.

Plecticus Loew, Verh. zool.-bot. Ver. Wien, v. p. 142 (1855).

8. PTECTICUS ATRITARSIS, sp. n.

1 ♀. Mimika River, July 1910. (*Type of the species.*)

Head: vertex and upper part of frons shining black; face and lower part of frons reddish-ochreous; antennæ reddish-ochreous, except for the arista, which is black. *Thorax* and *abdomen* uniformly reddish-ochreous. *Legs* uniformly reddish-ochreous, except the tibiæ and tarsi of the hind-legs, which are entirely black. The pubescence of the whole body is of the same colour as the underlying integument. *Wings* slightly yellowish-tinged, with dark brown veins; the apical fourth very slightly darkened. *Halteres* reddish-ochreous.

Length 12 mm.

The nearest ally of this species is apparently *P. rufescens* (v. d. Wulp), which differs in having darker wings and the hind tarsi largely white.

Family TABANIDÆ.

The Tabanidæ of the collection have already been recorded by Miss G. Ricardo in her paper, "The Tabanidæ of New Guinea" ('Nova Guinea,' ix. pp. 387-406, 1913). For the sake of completeness, however, it seems desirable to include a list of the species in the present paper:—

9. TABANUS ALBITHORAX.

Tabanus albithorax Ricardo, *l. c.* p. 391.

1 ♀. Iwaka River, Feb. 1911. (*Type of the species.*)

Also from Alkmaar and Heuvel Bivak.

10. TABANUS METALLICUS.

Tabanus metallicus Ricardo, *l. c.* p. 393.

1 ♀. Iwaka River, Feb. 1911. (*Type of the species.*)

Also from Alkmaar.

11. TABANUS WOLLASTONI.

Tabanus wollastoni Ricardo, *l. c.* p. 395.

3 ♀. Mimika River, July-Aug. 1910. (*Type and paratypes of the species.*)

Also from Bivak Island, Regen Island, and Alkmaar.

12. *TABANUS ILLUSTRIS*.

Tabanus illustris Ricardo, *l. c.* p. 398.

1 ♀. Iwaka River, Feb. 1911. (*Type of the species.*)

Also from Heuvel Bivak.

13. *CHRYSOPS ALBICINCTUS*.

Chrysops albicinctus v. d. Wulp, Tijdschr. v. Ent. xi. p. 103 (1868); Ricardo, *l. c.* p. 406.

1 ♀. Mimika River, July 1910.

Also from Bivak Island, Lorentz River, Rivier-kamp, and Alkmaar.

The following additional specimens were not referred to by Miss Ricardo in her paper:—

14. *DIATOMINEURA CALIGINOSA*.

Diatomineura caliginosa Walker, Proc. Linn. Soc. London, viii. p. 108 (1865); Ricardo, Ann. Mag. Nat. Hist. (7) v. p. 118 (1900).

1 ♀. Iwaka River, Feb. 1911.

1 ♀. Upper Utakwa Valley, 5000–10,000 ft., Feb.–March 1913.

15. *EREPHOPSIS*, sp. inc.

1 ♀. Upper Utakwa Valley, 5000–10,000 ft., Feb.–March 1913.

Family RHAGIONIDÆ (LEPTIDÆ).

Genus CHRYSOPILUS.

Chrysopilus Macquart, Rec. Soc. Sci. Agric. Lille, p. 403 (1826).

16. *CHRYSOPILUS FERRUGINOSUS*.

Leptis ferruginosa Wiedemann, Zool. Mag. i. iii. p. 4 (1819).

Chrysopila ferruginosa Schiner, Novara Reise, Diptera, p. 196 (1868).

Chrysopilus ferruginosus de Meijere, Nova Guinea, ix. iii. p. 322 (1913).

1 ♀. Mimika River, July 1910.

Already recorded from several localities in New Guinea, as well as from the Oriental Region.

17. *CHRYSOPILUS BINOCULATUS*, sp. n. (Pl. XXXVIII. fig. 3.)

1 ♂. Utakwa River, 3000 ft., Jan. 1913.

Head: face greyish pollinose; antennæ brown; mouth-parts ochreous-brown. *Thorax* uniformly dark ochreous-brown. *Abdomen* blackish, the first segment entirely ochreous-brown, the remaining segments each with an ochreous-brown band on the hind margin, these bands decreasing in width towards the apex of the abdomen. *Legs* blackish-brown, the front coxæ and femora and the base of the middle and hind

femora ochreous-brown. *Wings* with a yellowish ground-colour and brown markings, the latter arranged as follows:—a patch at the base of the basal and anal cells; a transverse fascia extending across the apices of these cells, broadening towards the hind margin of the wing; a patch surrounding the apical part of the upper branch of the fifth longitudinal vein (Cu_1), and a large patch occupying most of the apical third of the wing, darkest in the first, second, and third posterior cells. A roundish hyaline spot (opalescent against a dark background) is present near the apex of the first posterior cell, and another larger one close to the base of the second posterior cell; the second basal and discal cells are also for the most part hyaline. The second posterior cell has a pointed base and is much longer than the third. *Halteres* with ochreous stem and blackish knob.

Length of body 7 mm., of wing 7.5 mm.

This species belongs to a group which appears to have numerous representatives in both the Australasian and Oriental regions. The one which most closely resembles *C. binoculatus* is *C. stylatus* Walker, described from a female from Mysol. This differs principally in the absence of the round hyaline spot in the first posterior cell, and, as the two specimens belong to opposite sexes, it is just possible that this difference may eventually prove to be merely sexual.

Family ASILIDÆ*.

Subfamily Laphriinæ.

Genus MAIRA.

Maira Schiner, Verh. zool.-bot. Ges. Wien, Bd. xvi. p. 673 (1866).

18. MAIRA WOLLASTONI, sp. n. (Pl. XXXVIII. fig. 4.)

♂ ♀. Length, ♂ (2 specimens) 19 to 24 mm., ♀ (3 specimens) 19 to 22 mm.; width of head, ♂ 5 to 6.2 mm., ♀ 5.2 to 6 mm.; length of wing, ♂ 15.5 to 19 mm., ♀ 16.6 to 17.75 mm.

Dorsum of thorax moderately shining, bronze-coloured, anteriorly with a pair of conspicuous, yellowish, or whitish, shimmering pollinose, cuneate patches, each with its base covering the corresponding humeral callus, and its apex extending back towards or as far as the transverse suture, each lateral portion of which is clothed with similarly coloured pollen; from each lateral extremity of transverse suture, also, a shimmering, yellowish pollinose, somewhat cuneate mark extends backwards above base of wing; hind border of main portion of dorsum of thorax immediately above scutellum more or less distinctly clothed with cinnamon-rufous pollen; abdomen metallic blue, greenish-blue, or purplish-blue, lateral extremities of hind margins of third to sixth tergites inclusive silvery-white pollinose; wings sepia-coloured, paler (nearly hyaline) at base; legs

* By E. E. AUSIEN.

metallic green, bronze-green, or purplish-blue, tarsi darker purplish, front and middle femora and tibiæ very hairy in male.

Head black; occipital region whitish or greyish pollinose, clothed with black hair, basioccipital region clothed with whitish hair; *front*, except ocellar tubercle, yellowish or buff-yellow pollinose, face clothed with bright ochre-yellow or chrome-yellow hair; *mystax* yellowish, with a vertical row of five or six long black bristles on each side, female also with a number of fine black bristles or bristle-like hairs between the vertical rows of stout black bristles; *palpi* black, clothed with yellowish bristles, and occasionally also with one or two black or blackish bristles at the tips; *antennæ* clove-brown, first joint metallic purplish on outer side above, brownish pollinose below, first and second joints clothed with black hairs and bristles, third joint twice or nearly twice as long as first two joints taken together. *Thorax*: dorsum clothed with minute black hairs, which do not obscure the ground-colour, humeral calli bearing longer black hairs; pleuræ light grey pollinose, clothed with whitish hair, mesopleuræ, however, clothed largely or mainly with black or blackish hair, and the long hair on the metapleuræ also black, though there are a certain number of yellowish or cream-coloured hairs below. *Abdomen*: dorsum clothed with minute, appressed, black hairs, which do not conceal the ground-colour, lateral extremities of second to eighth tergites inclusive clothed with longer yellowish or blackish hairs, tergite of first segment greyish pollinose, its lateral extremities clothed posteriorly with blackish and anteriorly with whitish hair, venter very thinly clothed with long, fine, yellowish hairs, hind margins of ventral scutes of second to seventh segments inclusive silvery-grey pollinose; *hypopygium of male large* (about twice the size of that of *Maira spectabilis* Guér.), viewed in profile its lower margin appearing very convex at the base. *Wings*: nearly hyaline area at base includes second costal cell except extreme tip, proximal extremity of marginal cell, both basal cells except distal extremities, bases of anal and axillary cells, and the alula; veins dark brown. *Halteres* sepia-coloured, knobs sometimes darker (clove-brown), median portion of stalks often paler (isabella-coloured). *Legs*: front and middle coxæ greyish pollinose, clothed above with whitish and below mainly with black hairs; hind femora moderately swollen a little beyond middle; long hair on underside of front femora in male yellowish, that on posterior side of front tibiæ consisting of yellow mixed with black hairs, front femora in male also with a patch of fairly long black hairs on inner side near distal extremity; middle femora in male with a large tuft of long black hairs (sometimes mixed with yellowish hairs) on underside, middle tibiæ bearing very long, outstanding black hairs, except on flexor side, where the hairs are yellowish or pale buff-yellow and finer; hind femora in male clothed mainly with black hair (mixed with some yellowish hairs below), which is not so long as the hair on the front and middle femora; hind tibiæ in male thinly clothed with black hair of moderate length; hair on legs of female mainly black (whitish or pale yellowish on posterior surface of front femora), much shorter than in

male and not conspicuous; inner surface of distal two-thirds of front tibiæ in both sexes clothed with short, glistening, ochre-yellow, felt-like hairs, passing into dark chestnut-brown hairs at the tips of the tibiæ; claws black in both sexes; pulvilli ochraceous.

1 ♂, 1 ♀. Utaskwa River, 2500–3000 ft., Feb. 1913. (*Types of the species.*)

1 ♂, 1 ♀. Mimika River, July–Aug. 1910. (*Paratypes.*)

A third female in the National Collection, from Dorey, North-West New Guinea (*A. R. Wallace*), has the dorsum of the thorax more bluish and the tergites of the third and following abdominal segments more bluish-purple; while on the thorax the whitish, shimmering pollinose, cuneate markings, extending backwards from the humeral calli, have their extremities somewhat attenuated and produced until they distinctly reach the transverse suture—otherwise there appears to be no material difference from what is regarded above as the typical form.

[Additional specimens: 1 ♂. Utaskwa River, March 1913.

2 ♀. Base Camp, sea-level, Setakwa River, Nov.–Dec. 1912.

The species is evidently extremely closely allied to *M. spectabilis* Guérin and *M. longicornis* de Meijere.—*F. W. E.*]

19. MAIRA SOCIA.

Laphria socia Walker, Journ. Proc. Linn. Soc. London, iii. p. 84 (1859).

1 ♂. Mimika River, July 1910.

This single example appears to belong to this species, which was described from a male from the Aru Islands.

[Additional specimens: 2 ♂. Utaskwa River, 2500–3000 ft., Feb. 1913.

1 ♂. Base Camp, sea-level, Setakwa River, Nov.–Dec. 1912.—*F. W. E.*]

20. MAIRA ÆNEA.

Laphria ænea Fabricius, Systema Antliatorum, p. 161. 23 (1805).

3 ♂, 3 ♀. Mimika River, July 1910.

1 ♂. Utaskwa River, 2500–3000 ft., Feb. 1913.

[Additional specimens: 6 ♂. Base Camp, sea-level, Setakwa River, Nov.–Dec. 1912.—*F. W. E.*]

21. MAIRA, sp. inc.

1 ♂, 1 ♀. Utaskwa River, 2500–3000 ft., Feb. 1913.

Two very immature specimens, about 14 mm. in length. The male has no black bristles in the mystax, while the female has three such bristles on each side, but this discrepancy is doubtless due to the greater immaturity of the male.

22. MAIRA NITIDA, sp. n.

♂. Length (1 specimen) 16.5 mm.; width of head 4 mm.; length of wing just under 12 mm.

Slender, at least in male sex, with narrow elongate abdomen. Body metallic bronze-green, dorsum of thorax with a brassy tinge, and a narrow, median, cupreous, longitudinal stripe; prothorax, pleuræ, pectus, humeral calli, and a small, roughly semicircular, area on each side immediately above the latter, sides of dorsum of thorax, and first abdominal segment whitish pollinose, præscutellar furrow greyish pollinose, dorsum of thorax without pollinose markings other than those mentioned; posterior angles or lateral extremities of hind margins of second to seventh abdominal segments inclusive whitish pollinose; wings only lightly infuscated, their distal fourths light sepia or drab-coloured, hind borders commencing at distal extremities of anal and axillary cells slightly paler; front and middle femora and tibiæ metallic brassy green, hind femora and tibiæ metallic purplish-blue (upper surface of hind femora brassy towards distal extremity), upper surface of front and hind tarsi dark metallic blue, upper surface of middle tarsi metallic blue-black.

Head black, occiput whitish pollinose and basioccipital region clothed with whitish hair, black bristles forming usual transverse row on upper part of occiput relatively rather stout, as compared with those seen in specimens of similar size belonging to other species; front, except ocellar tubercle and posterior portion of sides, buff pollinose; face clothed with maize-yellow pollen, and with bright, glistening, depressed hair of similar colour; mystax pale yellow, with three long bristles on each side (in the type the uppermost bristle on the right and the two uppermost bristles on the left are black, the other bristles pale yellow); proboscis shining black, 2.75 mm. in length, tip of proboscis bearing a few ochre-yellow hairs above and below; palpi black, clothed with black bristles, and also, at least on one side, bearing one or two yellowish bristles at the tip; first and second joints of antennæ clove-brown, first joint shining, somewhat elongate, third joint dark sepia-coloured, about one-fourth longer than first two joints taken together, and from a little beyond the base onwards moderately deep in a dorso-ventral direction. Thorax: prothorax clothed with outstanding yellowish hair, main portion of dorsum clothed chiefly with minute, appressed, blackish hairs, which do not obscure the ground-colour, and on each side and posteriorly are replaced by yellowish hairs of similar character, and above postalar calli by longer yellowish hairs; pleuræ clothed entirely with silvery-white or whitish hair, except the fringe of long hair on the metapleuræ, which is wholly yellowish. Abdomen: tergites of first eight segments clothed on each side with outstanding whitish or yellowish-white hair, lateral extremities of posterior margins of third to seventh tergites inclusive clothed with shorter hair of similar colour, hind margin of eighth tergite, except at each end, and dorsal surface of hypopygium bearing long black hairs, second to eighth tergites, except as already stated, thinly clothed with short, appressed, black hairs, which do not obscure the ground-colour; when abdomen is viewed at a low angle from behind, extreme hind margins of third to seventh tergites inclusive are seen to be whitish pollinose, though—in type, at any rate—middle third of

pollinose hind margin of sixth tergite is wanting; *hypopygium* relatively rather large; venter thinly clothed with long whitish or yellowish-white hair, first six sternites and hind border of following one greyish pollinose. *Wings*: veins clove-brown, *anterior transverse vein short, thickened, and slightly infuscated*. *Halteres* isabella-coloured, upper surface of distal extremities of stalks and a streak on inner side of knobs clove-brown. *Legs*: coxæ greyish pollinose, clothed with whitish hair; distal extremities of upper surfaces of hind femora, extreme tips of upper surfaces of front and middle femora, and upper surfaces of all tibiæ and tarsi clothed with minute black hairs; upper surfaces of femora clothed, except as stated, with short, appressed, yellowish hairs, mingled in case of front and hind femora with longish, erect, yellowish hairs; under surfaces of all femora and flexor surfaces of all tibiæ clothed with long yellowish hair.

1 ♂. Mimika River, July 1910. (*Type of the species.*)

23. MAIRA GLORIOSA.

Laphria gloriosa Walker, Journ. Proc. Linn. Soc. London, iii. p. 84 (1859).

1 ♂. Mimika River, July 1910.

1 ♂. Wataikwa River, August 1910.

This handsome species was previously represented in the National Collection by the typical male and female and a second male—all from the Aru Islands (*A. R. Wallace*); also by a third male from the Obi Islands, Molucca Group (*C. W. R. van Renesse van Duivenborg*).

Subfamily Asilinæ.

Genus PROMACHUS.

Promachus Loew, Linnæa Entomologica, Bd. iii. p. 390 (1848).

24. PROMACHUS RAPTOR, sp. n.

♀. Length (2 specimens) 23 to 28.25 mm.; width of head 5.4 to 6 mm.; length of wing 17.2 to 19.2 mm.

Allied to and somewhat resembling Promachus (Trupanea) complens Walker, but distinguishable owing to the markings of the femora and the greater hairiness of the pollinose abdominal bands.—*First joints of antennæ close together; mystax composed of black bristles, intermixed, especially below, with finer, yellowish, bristly hairs; dorsum of thorax dark olive-brown, yellowish pollinose on each side, and with narrow yellowish pollinose markings above; dorsum of abdomen black, first segment and lateral and hind borders of three following segments buff-yellow pollinose and clothed with bright ochre-yellow hair, distal portion of abdomen, consisting of last five segments, greatly attenuated and drawn out; tibiæ and middle femora partly black and partly ochraceous-rufous.*

Head: face yellowish pollinose, occiput greyish pollinose; sides of front and region

of ocelli clothed with erect black hairs, lower portion of sides of front also bearing yellowish hairs; upper portion of sides of face clothed with a mixture of black and yellowish hairs, at least in case of type (in paratype with yellowish hairs alone); jowls clothed with black hairs, occiput, except its upper border, and basioccipital region clothed with whitish or yellowish-white hair; *palpi* black and clothed with black bristles and hairs; first and second joints of *antennæ* clove-brown, third joint dark brown, its style chestnut-brown, first and second antennal joints clothed with black hairs or bristles, first joint also with yellowish hairs at base beneath. *Thorax*: dorsum with a narrow median longitudinal stripe, two narrow admedian longitudinal stripes, and transverse suture yellowish pollinose, longitudinal pollinose stripes becoming indistinct posteriorly, where median stripe is expanded into a somewhat scutiform mark; dorsum thinly clothed with erect black hairs and bristles, its fore border clothed with yellowish hair; *scutellum* yellowish pollinose, clothed with recurved buff-yellow hairs and black bristles; *pleuræ* yellowish or greyish pollinose, clothed partly with black, partly with yellowish or whitish hair; fringe on *metapleure* partly black and partly yellowish (entirely yellowish below). *Abdomen*: tergites of second and third segments clothed exclusively with ochre-yellow hair, the similar hair on the fourth tergite replaced in front more or less extensively by black hair, lateral borders of fifth tergite yellowish pollinose; ventral surface of first five segments yellowish pollinose and clothed with long ochre-yellow hair, ventral surface of remaining segments black and (with exception of last segment, on which hairs are ochreous posteriorly and below) thinly clothed with black hairs. *Wings* tinged with raw umber, usual dark streak in first submarginal cell large and well defined, *Halteres* ochraceous-buff. *Legs*: *coxæ* greyish pollinose and clothed with yellowish hair, hind *coxæ* bearing a fringe of long, curved, black hairs below; *tarsi*, front and hind femora, tips of front and middle *tibiæ*, and rather less than distal half of hind *tibiæ* black, middle femora black at tips and on proximal three-fourths of under surface, anterior femora sometimes with an ochraceous-rufous spot on posterior surface, at commencement of distal third; hair on femora and *tibiæ* partly ochreous, partly black, posterior surface of hind femora clothed with ochreous hair; *claws* black, *pulvilli* buff.

2 ♀. Utakwa River, 2500-3000 ft., Feb. 1913. (*Type and paratype of the species.*)

[Additional specimen: 1 ♀. Base Camp, sea-level, Setakwa River, Nov.-Dec. 1912.—F. W. E.]

25. *PROMACHUS NOSCIBILIS*, sp. n. (Pl. XXXVIII. fig. 5.)

♂. Length (1 specimen) 27 mm.; width of head 6.4 mm.; length of wing 21.2 mm.

Allied to and resembling Promachus bifasciatus Macq., but distinguishable at once, at least in the male sex, by the coloration of the front and middle tibiæ and the small size

of the genitalia.—Black; pleuræ and markings on dorsum of thorax seal-brown pollinose; dorsum of abdomen at base with two very conspicuous transverse bands of long, dense, backwardly directed white hair; male genitalia with abnormally small claspers; legs black, front and middle tibiæ raw-umber-coloured, with the exception of their antero-inferior surfaces and extreme bases, which are clove-brown or black.

Head: face raw-sienna-coloured pollinose above, buff-yellow pollinose below, front mummy-brown pollinose, occiput dark mouse-grey pollinose (orbits yellowish-grey pollinose below level of transverse row of black bristles near upper margin of head); anterior half of front clothed on each side with black hairs, sides of vertex clothed with longer, ochre-yellow hairs, a few yellowish hairs also present on each side just above antennæ; median portion of upper part of face bearing a few longish, erect, yellowish hairs, below which are three dark brown hairs on each side in an oblique descending series; *mystax* consisting of black bristles above, and of longer, drooping, orange-ochraceous bristles below; jowls clothed with ochre-yellow hair; occiput clothed with yellowish hair, basioccipital region densely clothed with long, bright maize-yellow hair; *palpi* black, clothed with coarse, ochre-yellow hairs, and also bearing a number of black bristles at their distal extremities; *antennæ* moderately close together at base, first and second joints black, shining at their distal extremities, yellowish pollinose at the base, clothed with stiff black bristles, first joints also with some yellowish hairs on outer side at base (third joints missing in case of type). *Thorax*: dorsum with lateral borders, two faintly marked admedian longitudinal stripes, transverse suture, a curved mark on each side in front of the latter, and *scutellum* seal-brown pollinose; pronotum, except on each side, thinly clothed with ochreous hairs traversed by a transverse row of black bristles, propleuræ densely clothed with maize-yellow hair, and a few yellowish hairs in front of postalar callus on each side; with these exceptions hair on thorax, like thoracic bristles, entirely black. *Abdomen*: anterior transverse band of white hair occupying second tergite and hind margin of first, following band of white hair occupying third tergite but separated from anterior band by a well-marked interval, hair clothing subsequent tergites and also lateral extremities of first three tergites entirely black; lateral borders of fourth to eighth tergites inclusive greyish pollinose; male *claspers* scarcely half the size of those of *Promachus fasciatus* Macq.; venter clove-brown, somewhat shining, clothed with fine black hair. *Wings* raw umber-coloured, dark streak in first submarginal cell rather narrow, closer to second longitudinal vein than to anterior branch of third longitudinal. *Halteres* chestnut-brown. *Legs*: front and middle coxæ clothed anteriorly with long, coarse, ochre-yellow hair, posterior coxæ with some fine yellowish hairs on outer side; upper surface and upper portion of posterior surface of hind femora, except at distal extremity, and upper portion of posterior surfaces of front and middle femora clothed with short buff-yellow hairs (front femora also with a few similarly coloured hairs on lower portion of posterior surface), raw-umber-coloured

area of front and middle tibiae clothed with longer buff-yellow hair, a few similarly coloured hairs on proximal portion of dorsal surface of hind tibiae, where (at least in the type) ground-colour shows an indistinct raw-umber-coloured streak, and a few scattered buff-yellow hairs on outer margin of upper surface of first joints of front and middle tarsi; trochanters thinly clothed with ochre-yellow hairs; claws, all bristles on legs, and hair on legs, except as already stated, black; upper surface of first joint of front tarsi, and upper surface of first joint of middle tarsi except at distal extremity mummy-brown.

1 ♂. Wataikwa River, Sept. 1910. (*Type of the species.*)

Genus NEOITAMUS.

Neoitamus Osten-Sacken, Cat. Dipt. North America, 2nd ed. pp. 82 & 235 (1878).

26. NEOITAMUS LONGISTYLUS.

Asilus longistylus Wiedemann, Aussereurop. zweifl. Ins. i. p. 433 (1828).

2 ♂, 1 ♀. Wataikwa River, Aug. 1910.

1 ♂. Utakwa River, 2500–3000 ft., Feb. 1913.

The British Museum already possessed two females of this species from Salawatti I., near New Guinea (*A. R. Wallace*), and according to the late F. M. van der Wulp (*Tijdschr. voor Ent.*, Jaarg. 15, p. 248, 1872) the Leiden Museum contains examples from Morotai, Waigiu, Batchian, Ternate, and Halmaheira. The type of the species, which is also in the Leiden Museum, is stated by Wiedemann to have been obtained in Java.

[Additional specimen: 1 ♂. Base Camp, sea-level, Setakwa River, Nov.–Dec. 1912.—*F. W. E.*]

Genus OMMATIUS.

Ommatius Wiedemann, *Diptera Exotica*, p. 213 (1821).

27. OMMATIUS EXCURRENS.

Ommatius excurrens van der Wulp, *Tijdschr. voor Ent.*, Jaarg. 15, p. 263, pl. 12. fig. 15 (1872).

1 ♂. Mimika River, July 1910.

The type of this species, which is from Morotai, Moluccas Is., is in the Leiden Museum.

28–30. OMMATIUS, 3 spp. inc.

1 ♂. Wataikwa River, Aug. 1910.

1 ♂ without data.

1 ♀. Mimika River, Aug. 1910.

Three small specimens, which appear to belong to three distinct species, none of which were previously represented in the Museum Collection, while all are indeterminate with existing literature. In view of the paucity of the material, it has not been thought advisable to describe any of these species as new.

Genus EMPHYSOMERA.

Emphysomera Schiner, Verh. zool.-bot. Ges. Wien, Bd. xvi. pp. 665, 845 (1866).

31. EMPHYSOMERA INVEHENS.

Ommatius invehens Walker, Proc. Linn. Soc. London, vii. p. 224 (1864).

1 ♀. Wataikwa River, Aug. 1910.

In addition to the type of this species, from Waigiü (*A. R. Wallace*), the British Museum possesses examples from Mysol (*A. R. Wallace*) and Singapore (*H. N. Ridley*).

Family BOMBYLIIDÆ.

Subfamily Anthracinæ.

Genus HYPERALONIA.

Hyperalonia Rondani, Archivio per la Zool. iii. p. 57 (1863).

32. HYPERALONIA DORYCA.

Anthrax dorycus Boisduval, Voyage de l'Astrolabe, Entom. ii. p. 665 (1835).

2 ♂. Mimika River, Sept.—Nov. 1910.

1 ♂. Wataikwa River, Jan. 1911.

The British Museum series consists of specimens from Dorey, New Guinea, Aru Islands, Gilolo, Amboina, and Waigiü (*A. R. Wallace*), Ceram (*Mme. J. Pfeiffer*), and Guadalcanar, Solomon Islands (*A. S. Meek*). De Meijere also records the species from New Guinea.

Genus ARGYRAMÆBA.

Argyromæba Schiner, Wien. Ent. Monatschr. iv. p. 51 (1860).

Argyramæba Kertész, Cat. Dipt. v. p. 59 (1909).

33. ARGYRAMÆBA DISTIGMA, var. TRIMACULATA.

Anthrax trimaculatus v. d. Wulp, Tijds. v. Ent. xi. p. 110 (1868).

Argyramæba distigma, var. *trimaculata* de Meijere, Bijdr. Dierk. xix. p. 50 (1904).

1 ♂. Mimika River, Oct. 1910.

Originally described by van der Wulp from Timor, this form has since been recorded by de Meijere from Ceram. There is also a specimen from Ceram in the British Museum Collection, which was recorded by Walker as *A. distigma*.

Family DOLICHOPODIDÆ.

Subfamily Dolichopodinaë.

Genus PSILOPUS.

Psilopus Meigen, Syst. Besch. iv. p. 35 (1824).

34. PSILOPUS SPLENDIDUS, var.

Psilopus splendidus van der Wulp, Tijd. v. Ent. xi. p. 111 (1868).

Agonosoma splendidum de Meijere, Nova Guinea, v. i. p. 81, figs. 6 & 7 (1906).

Chrysosoma splendidum Enderlein, Zool. Jahrb., Suppl. xv. Bd. 1, p. 395 (1912).

1 ♂. Mimika River, July 1910.

2 ♂. Wataikwa River, Aug. 1910.

The coloration of the wings in all three specimens is exactly as in de Meijere's figure, and it seems to me quite probable that when the species of *Psilopus* are more closely studied the difference in marking indicated by van der Wulp and de Meijere will prove to be of specific value. Both these writers record the species from New Guinea.

35. PSILOPUS SIGNATIPENNIS.

Agonosoma signatipenne de Meijere, Nova Guinea, v. p. 83 (1906).

Psilopus signatipennis de Meijere, Nova Guinea, ix. p. 340 (1913).

2 ♀. Mimika River, July 1910.

1 ♀. Wataikwa River, Aug. 1910.

Recorded by de Meijere from various localities in New Guinea. Walker's *P. extendens*, also recorded from New Guinea, is very similar, but is somewhat larger, the dark markings on the wings are somewhat more extensive, and the front femora are dark at the tip.

36. PSILOPUS MACULIPENNIS.

Agonosoma maculipennis Guérin, Voyage de la 'Coquille,' Zool. ii. pt. 2, p. 294 (1838).

Chrysosoma maculipennis Guérin, op. cit. pl. xx. fig. 5 (1832).

? *Psilopus benedictus* Walker, Proc. Linn. Soc. London, iii. p. 91 (1859).

? *Psilopus persuadens* Walker, Proc. Linn. Soc. London, v. p. 149 (1861).

Agonosoma benedictum de Meijere, Nova Guinea, v. p. 80 (1906).

Psilopus maculipennis de Meijere, Nova Guinea, ix. p. 340 (1913).

1 ♂. Wataikwa River, Aug. 1910.

In this specimen the hind-femora and tibiæ are entirely yellowish, except towards the apex of the latter, which is dark. In Walker's type of *P. benedictus* (from Waigiu) the hind-tibiæ are all black, while the type of *P. persuadens* (from Amboina)

has the apex of the hind-femora and the base of the hind-tibiæ dark. These differences may or may not be of specific value. There appear also to be slight differences in the male hypopygia.

37. *PSILOPUS EGENS*.

Psilopus egens Walker, Proc. Linn. Soc. London, iii. p. 92 (1859).

1 ♂. Mimika River, July 1910.

In this species the bristle on the underside of the second joint of the antennæ is much longer than usual, being fully two-thirds as long as the depth of the head. The only specimen previously in the British Museum Collection was Walker's type from the Aru Islands.

Family SYRPHIDÆ.

Subfamily Syrphinæ.

Genus ASARKINA.

Asarkina Macquart, Dipt. Exot. ii. 2, p. 77 (1842).

Asarcina Kertész, Cat. Dip. vii. p. 94 (1910).

38. *ASARKINA ÆGROTA*.

Eristalis ægrotus Fabricius, Syst. Antl. p. 243 (1805).

1 ♂. Mimika River, July 1910.

1 ♂, 2 ♀. Wataikwa River, Aug. 1910.

This species is widely distributed over the Oriental and Australasian regions, but these are the first specimens received by the British Museum from New Guinea.

39. *ASARKINA BIRÓI*.

Asarcina birói Bezzi, Ann. Mus. Nat. Hung. vi. p. 498 (1908).

? *Didea macquarti* Doleschall, Nat. Tijdschr. Ned. Ind. (3) iv. p. 408 (1857).

1 ♀. Wataikwa River, Aug. 1910.

The British Museum Collection previously contained a pair from the Aru Islands and a female from Mysol (*A. R. Wallace*), all three being determined as *A. macquarti*.

40. *ASARKINA ERICETORUM*, var. *PAPUANA*.

Syrphus ericetorum Fabricius, Species Insect. ii. p. 425 (1781).

Asarcina ericetorum, var. *papuana* Bezzi, Ann. Mus. Nat. Hung. vi. p. 499 (1908).

1 ♀. Wataikwa River, Aug. 1910.

This is the first specimen of this variety received by the British Museum.

Genus BACCHA.

Baccha Fabricius, Syst. Antl. p. 199 (1805).

41. BACCHA BICOLOR.

Baccha bicolor Austen, Proc. Zool. Soc. London, p. 137 (1893).

2 ♀. Mimika River, July 1910.

1 ♀. Wataikwa River, Aug. 1910.

Austen's type, a male from Mysol, differs in having a small, nearly clear space at the base of the wing, but these specimens belong, without much doubt, to the same species.

Subfamily Merodontinæ.

Genus ERISTALIS (sens. lat.).

Eristalis Latreille, Hist. Nat. Crust. et Ins. xiv. p. 363 (1804).

42. ERISTALIS (LATHYROPHTHALMUS) PLACENS.

Eristalis placens Walker, Proc. Linn. Soc. London, vii. p. 211 (1864).

1 ♀. Mimika River, Aug. 1910.

Walker's type, which was from Mysol, differs from the present specimen in having the hind-femora reddish towards the base and apex instead of almost entirely black, but the former may possibly be immature. An unnamed specimen in the British Museum Collection from Celebes (*A. B. Wallace*) agrees entirely with the New Guinea specimen before me. Possibly Walker's *E. suavissimus* may be a form of the same species, but the pale markings of the abdomen are much larger.

43. ERISTALIS (? PHYTOMIA) MUSCOIDES.

Eristalis muscoides Walker, Proc. Linn. Soc. London, iii. p. 96 (1859); de Meijere, Nova Guinea, v. p. 85, pl. i. fig. 11 (1906).

1 ♀. Mimika River, July 1910.

Known already from New Guinea, also from the islands of Aru and Amboina.

Genus HELOPHILUS.

Elophilus Meigen, Illiger's Mag. ii. p. 274 (1803).

Helophilus Meigen, Syst. Besch. iii. p. 368 (1822).

44. HELOPHILUS (MESEMBRIUS) HILARIS.

Helophilus hilaris Walker, List Dipt. Brit. Mus. iii. p. 605 (1849).

1 ♂. Mimika River, July 1910.

Apart from Walker's type, the origin of which is unknown, the National Collection possesses three specimens from Queensland (*T. L. Bancroft*, *F. P. Dodd*, and *H. Hacker*).

Genus DISSOPTERA*, gen. nov.

Eyes bare, widely separated in both sexes. Face slightly produced, without any trace of a central knob. Antennæ of normal form; third joint subcircular, arista bare. Thorax with a peculiar vestiture, described below. Abdomen somewhat conical. Legs rather slender, hind-femora quite simple. Wings bare; marginal cell closed; dip in the third vein distinct, but not very deep; small cross-vein placed very much before the middle of the discal cell; subapical cross-vein normal.

Perhaps allied to the South European *Palumbia*, but differing from that genus in having the eyes of the male widely separated, and from all other members of the subfamily in the position of the small cross-vein. In this latter respect the insect seems to approach the Volucellinæ, but it is not likely that it is a genuine connecting form, since the whole habitus is that of an *Eristalis*.

45. DISSOPTERA POLLINOSA, sp. n. (Pl. XXXVIII. fig. 6.)

1 ♀. Iwaka River, February 1911 (*A. F. R. Wollaston*). (*Type of the species*.)
 1 ♂. From Dong Hanon, Mishmi Country, 2000 ft., on the Tibetan frontier of N.E. India, 27. vii. 1911 (*F. M. Bailey*). 1 ♀. Mt. Dulit, North Borneo (*A. H. Everett*).
 1 ♀. Aneiteum, New Hebrides. 1 ♀. New Hebrides (*Saunders coll.*); all in the British Museum.

Head: eyes absolutely bare, a trifle more widely separated in the male than in the female. Vertex velvety black, with some short black hair. Frons blackish, the sides somewhat convergent above, bare in the middle line above the antennæ, clothed at the sides with very small yellow scales; towards the middle these scales are less dense, and instead of being flattened are solid, appearing under a hand-lens like grains of pollen; mixed up with these peculiar scales is a considerable amount of black hair, which is as long as the two basal joints of the antennæ. Face somewhat shining black, bare in the middle, thickly clothed at the sides with yellow hair or hair-like scales; very slightly produced at the oral margin; no trace of a central knob. Antennæ dark brown, the third joint reddish except on the front-margin; arista bare, slightly thickened towards the base. *Thorax*: mesonotum and scutellum clothed with a mixture of minute, solid, yellow "scales" and comparatively long black hair, just as on the frons; the yellow "scales" are densest on the scutellum; hair on margins of mesonotum yellow; pleuræ with large tufts of long yellow hair. *Abdomen*: blackish brown; second segment with a pair of large sub-triangular orange-yellow spots at the sides towards the base; third and fourth segments with similar but smaller and differently shaped spots. Pubescence mainly yellow, but mixed with black on the dark portions. In the specimens from the New Hebrides the abdomen bears scales

* $\zeta\sigma\sigma\delta\varsigma$, ambiguous.

similar to those of the head and thorax. *Legs*: front- and middle-femora orange, blackish at the base and with rather long, yellow hair on their undersides; hind-femora in the type dark orange-brown with a black ring near the middle, in the other specimens entirely black; front- and middle-tibiæ orange on the basal and black on the apical half; hind-tibiæ black, lighter towards the base; all the tarsi black. *Wings* almost hyaline, with a slight yellowish tinge except towards the apex; venation as in the figure; halteres yellow.

Length, ♂ 9 mm., ♀ 10 mm.

The only published description which would at all apply to the specimens before me is that of *Eristalis heterothrix* de Meijere (Tijd. v. Ent. li. p. 273, 1908), which is known from Borneo and New Guinea. There are, however, many discrepancies which lead me to believe that I cannot be redescribing de Meijere's species. Although no mention is made of the venation of *E. heterothrix*, it is possible that it really belongs to the genus *Dissoptera*, since de Meijere notes the bare eyes, widely separated in the male, and the absence of a central knob on the face.

Family MUSCARIDÆ.

Subfamily Tachininae.

Genus MASICERA.

Masicera Macquart, Soc. Sci. Lille, 1833, p. 235 (1834).

46. MASICERA MORIO.

Masicera morio Doleschall, Nat. Tijd. Ned. Ind. xvii. p. 104 (1858).

1 ♂. Wataikwa River, Aug. 1910.

The specimen agrees structurally with one in the British Museum Collection from Gilolo (*A. R. Wallace*), but differs in having the scutellum and the base of the abdomen somewhat reddish.

47. MASICERA NOTABILIS.

Masicera notabilis Walker, Proc. Linn. Soc. London, iii. p. 97 (1859); Austen, Ann. Mag. Nat. Hist. (7) xix. p. 341 (1907).

Phorocera convertens Walker, Proc. Linn. Soc. London, v. p. 240 (1861).

1 ♀. Wataikwa River, Aug. 1910.

Agrees structurally with Walker's types from Dorey, New Guinea, and Gilolo, the only specimens previously in the British Museum Collection; but has practically no trace of reddish colour on the abdomen or scutellum.

Genus *PODOMYIA*.

Podomyia Brauer & von Bergenstamm, Denkschr. math.-nat. Cl. k. Akad. Wiss. lvi. p. 96 (1889).

48. *PODOMYIA SETOSA* ?

Eurigaster setosus Doleschall, Nat. Tijd. Ned. Ind. xvii. p. 102 (1858).

1 ♀. Wataikwa River, Aug. 1910.

There is a specimen from Ceylon (*J. W. Yerbury*) in the British Museum Collection, over which Mr. E. E. Austen has placed the following note:—"The genus *Podomyia* Br. & v. Berg., was founded for *Eurigaster setosa* Doleschall, from Amboina. The specimen below, from Ceylon, agrees very well with the original description of *E. setosa*, but does not agree as regards several points with the diagnosis of the genus *Podomyia*—*e. g.*, the eyes are hairy, as they are stated to be by Doleschall, but *apud* Brauer and von Bergenstamm they should be bare."

The New Guinea specimen agrees with the Ceylon one, except that it is smaller and has yellowish instead of grey dusting.

Genus *CLYTHO*.

Clytho Robineau-Desvoidy, Myodaires, p. 375 (1830).

49. *CLYTHO* sp. ?

1 ♀. Wataikwa River, Aug. 1910.

The possible generic position of this peculiar fly has been suggested to me by Mr. C. J. Wainwright.

Genus *PLESIOCYPTERA*.

Plesioicyptera Brauer & von Bergenstamm, Denkschr. math.-nat. Cl. k. Akad. Wiss. lx. p. 144 (1893).

50. *PLESIOCYPTERA DIVISA*. (Pl. XXXVIII. fig. 7.)

Trichoprosopa ? *divisa* Walker, Proc. Linn. Soc. London, vii. p. 213 (1864).

Plesioicyptera divisa Austen, Ann. Mag. Nat. Hist. (7) xix. p. 346 (1907).

1 ♂. Wataikwa River, Aug. 1910.

Agrees quite well with Walker's type from Mysol.

Subfamily *Dexiinæ*.Genus *DOLESCHALLA*.

Doleschalla Walker, Proc. Linn. Soc. London, v. p. 242 (1861).

51. *DOLESCHALLA CYLINDRICA*.

Doleschalla cylindrica Walker, Proc. Linn. Soc. London, v. p. 242 (1861).

Doleschalla consors Walker, l. c. vii. p. 225 (1864).

Doleschalla gonypedoides Walker, l. c. vii. p. 226 (1864).

Doleschalla venosa Bigot, Ann. Soc. Ent. France, (6) viii. p. 100 (1888).

1 ♀. Wataikwa River, Aug. 1910.

The types of all the above from New Guinea, Waigiu, and Salawatti are in the British Museum. The synonymy, determined by Mr. E. E. Austen, has not, so far as I am aware, been published previously. The British Museum Collection also contains a specimen from the Nilgiri Hills, S. India, 3000 ft., 14. iv. 1888 (*G. F. Hampson*).

Genus THELAIRA.

Theaira Robineau-Desvoidy, Myodaires, p. 214 (1830).

52. THELAIRA sp. ?

1 ♀. Wataikwa River, Aug. 1910.

Mr. C. J. Wainwright, to whom I submitted the specimen, writes:—"I should place it very near to *Theaira*, but I cannot fit it into any genus exactly. The absence of setæ on the veins of the wings seems to remove it from *Theaira* itself, as restricted by Brauer and von Bergenstamm, but none of Brauer's other genera agree any better . . . Note the saw-like underside of the abdomen, which resembles in that respect the well-known *Compsilura concinnata* Mg. and *Lydella nigripes* Fall. The Americans have considered *Compsilura* and *Lydella* as near allies on account of the joint possession of this character; it is interesting therefore to find it in another species which cannot also be considered an ally. It is doubtless a case of similar habits resulting in similar structures."

Subfamily Sarcophaginæ.

Genus SARCOPHAGA.

Sarcophaga Meigen, Syst. Besch. v. p. 14 (1826).

53. SARCOPHAGA INVARIA.

Sarcophaga invaria Walker, Proc. Linn. Soc. London, iii. p. 103 (1859).

1 ♀. Wataikwa River, Aug. 1910.

1 ♂. Utakwa River, Sept. 1912-March 1913.

These appear to agree with Walker's types from the Aru Islands.

Subfamily Muscinæ.

Genus POLLENIA.

Pollenia Robineau-Desvoidy, Myodaires, p. 412 (1830).

54. POLLENIA sp.

1 ♂. Mimika River, July 1910.

A species with conspicuous deep ochreous-brown pubescence on the thorax.

Genus MUSCA.

Musca Linné, Fauna Suecica, p. 439 (1763).

55. MUSCA DOMESTICA.

Musca domestica Linné, Fauna Suecica, p. 1833 (1763).

1 ♂. Canoe Camp, Setakwa River, Nov. 1912.

Genus NEOPOLLENIA.

Neopollenia Brauer, Sitzb. k. Akad. Wiss. Wien, math.-nat. Cl. cviii. p. 520 (1899).

56. NEOPOLLENIA PAPUA.

Calliphora papua Guérin, Voyage de la 'Coquille,' Zool. ii. p. 297 (1826-30).

Neopollenia papua de Meijere, Nova Guinea, v. p. 89 (1906).

1 ♀. Wataikwa River, Aug. 1910.

De Meijere places *Pollenia erystaloides* Walker, and *Musca calliphoroides* Walker as synonyms of *N. papua*, but there are slight differences. In *P. erystaloides* the thoracic markings are not quite the same, and in *M. calliphoroides* the femora are entirely yellowish, whereas in the present specimen they are black at the tips, as is indicated in Guérin's figure.

Genus PSEUDOPYRELLIA.

Pseudopyrellia Girschner, Bcrl. ent. Zeit. xxxviii. p. 306 (1893).

57. PSEUDOPYRELLIA sp.

1 ♂. Mimika River, July 1910.

Subfamily Anthomyiinae.

Genus MYDÆA.

Mydæa Robineau-Desvoidy, Myodaires, p. 479 (1830).

58. MYDÆA CURVINERVIS ?

Spilogaster curvinervis Stein, Term. Füz. xxiii. p. 136 (1900).

1 ♀. Wataikwa River, Aug. 1910.

Agrees fairly well with the description of *S. curvinervis*, but the thorax has three shimmering greyish stripes in front, a character which is not mentioned by Stein. The type was from Huon Gulf, New Guinea.

Subfamily Platystominae.

Genus ELASSOGASTER.

Elassogaster Bigot, Ann. Soc. Ent. France, p. 546 (1859); Hendel, Abh. z.-b. Ges. Wien, viii. p. 71 (1914).

59. ELASSOGASTER DIDYMOIDES.

Elassogaster didymoides Hendel, Abh. z.-b. Ges. Wien, viii. p. 76 (1914).

Stenopterina didyma Kertész, Term. Füzet. xxii. p. 184 (1899).

1 ♂. Wataikwa River, Aug. 1910.

Recorded by Kertész from Friedrich Wilhelmshafen, New Guinea.

Genus CLEITAMIA.

Cleitamia Macquart, Suites à Buffon, ii. p. 440 (1835).

60. CLEITAMIA ASTROLABELI.

Ortalis astrolabei Boisduval, Voyage de l'Astrolabe, Ent. p. 668, pl. 12. fig. 17 (1833).

Cleitamia astrolabei Hendel, Abh. z.-b. Ges. Wien, viii. p. 125 (1914).

3 ♂, 5 ♀. Mimika River, July 1910.

This seems to be a common species in New Guinea and the neighbouring islands.

61. CLEITAMIA LITURATA.

Dacus lituratus Walker, Proc. Linn. Soc. London, v. p. 251 (1861).

Cleitamia liturata Osten-Sacken, Ann. Mus. Genov. xvi. p. 468 (1831); Hendel, op. cit. p. 129.

1 ♀. Mimika River, Aug. 1910.

Previously represented in the British Museum Collection by specimens from Mysol, Salawatti, Waigiu, and New Guinea (*A. R. Wallace*).

62. CLEITAMIA LATIFASCIA.

Dacus latifascia Walker, Proc. Linn. Soc. London, iii. p. 114 (1859).

1 ♂. Base Camp, sea-level, Setakwa River, Nov.-Dec. 1912.

Walker's type from the Aru Islands is in good condition in the British Museum and is clearly a *Cleitamia*. The species is intermediate, as regards its wing-markings, between *C. liturata* (Walk.) and *C. kertészi* Hendel, differing from the former in having a dark costal margin at the apex of the wing, and from the latter in the larger brown patch at the base of the wing.

Genus *ACHIAS*.

Achias Fabricius, Syst. Antl. p. 247 (1805).

63. *ACHIAS PUNCTULATUS*.

Achias punctulatus de Meijere, Nova Guinea, ix. p. 372 (1913); Hendel, Abh. z.-b. Ges. Wien, viii. p. 215 (1914).

1 ♀. Canoe Camp, Setakwa River, Nov. 1912.

The specimen is apparently immature; the thoracic stripes are reddish instead of black, and the hind-femora are narrowly yellow at the base, otherwise the agreement with de Meijere's description is perfect. *A. amplividens* Walker, is extremely similar, and has the same peculiar dotting on the head and thorax, but differs in having the femora yellow.

Genus *LAMPROGASTER*.

Lamprogaster Macquart, Dipt. Exot. ii.-iii. p. 211 (1843).

64. *LAMPROGASTER QUADRILINEA*.

Lamprogaster quadrilinea Walker, Proc. Linn. Soc. London, iii. p. 111 (1859); Hendel, Abh. z.-b. Ges. Wien, viii. p. 242 (1914).

1 ♂. Base Camp, sea-level, Setakwa River, Nov.-Dec. 1912.

Already known from New Guinea, Mysol, and Waigiou.

Genus *EUPROSOPIA*.

Euprosopia Macquart, Dipt. Exot. Supp. ii. p. 89 (1847).

65. *EUPROSOPIA PENICILLATA*.

Euprosopia penicillata Hendel, Abh. z.-b. Ges. Wien, viii. p. 343 (1914).

? *Euprosopia potens* de Meijere (*nec* Walker), Nova Guinea, ix. p. 369 (1913).

1 ♂. Wataikwa River, Aug. 1910.

Described by Hendel from Huon Gulf, New Guinea.

66. *EUPROSOPIA* sp.

2 ♀. Wataikwa River, Aug. 1910.

It is just possible that these represent the undescribed female of *E. penicillata*, as the markings of the thorax and wings are identical. In these specimens, however, the antennæ and their cavities are black, and so are the legs, while the eye-margins of the face have a silvery sheen.

67. *EUPROSOPIA IMPINGENS*.

Platystoma impingens Walker, Proc. Linn. Soc. London, viii. p. 134 (1865).

Euprosopia fusifacies de Meijere, Nova Guinea, v. p. 92 (1906), and ix. p. 369 (1913).

Euprosopia impingens Hendel, Abh. z.-b. Ges. Wien, viii. p. 345 (1914).

1 ♂. Mimika River, Aug. 1910.

Previously represented in the National Collection by Walker's type from Salawatti.

Subfamily Micropezinæ.

Genus TÆNIAPTERA.

Tæniaptera Macquart, Suites à Buffon, ii. p. 491 (1835).

68. TÆNIAPTERA ALBIMANA.

Tæniaptera albimana Doleschall, Nat. Tijd. Ned. Ind. x. p. 413 (1856).

Calobata albimana Osten-Sacken, Ann. Mus. Genov. xvi. p. 454 (1880); de Meijere, Nova Guinea, ix. p. 362 (1913).

2 ♂, 2 ♀. Mimika River, July 1910.

1 ♀. Base Camp, sea-level, Setakwa River, Nov.–Dec. 1912.

Recorded by de Meijere from various localities in New Guinea, but not previously represented in the British Museum Collection.

Genus ANGITULA.

Angitula Walker, Proc. Linn. Soc. London, iii. p. 123 (1859); Hendel, Gen. Ins., Pyrgotinae, p. 3 (1908).

69. ANGITULA LONGICOLLIS.

Angitula longicollis Walker, Proc. Linn. Soc. London, iii. p. 123 (1859).

Elaphomyia polita Saunders, Trans. Ent. Soc. London, v. p. 416 (1861).

2 ♀. Mimika River, July 1910.

According to a manuscript note by Mr. E. E. Austen, this species is quite distinct from *A. cyanea* Guérin. An examination of the British Museum specimens reveals the following differences:—

A. longicollis: head dark bluish, submetallic, rarely with any reddish tinge except on the front and face; antennæ almost entirely dark brown; a small but sharply defined dark brown spot at the tip of the wing.

A. cyanea: head bright reddish, with two narrow dark lines on the nape; antennæ yellowish except for the tip of the third joint, which is dark brown; wings with a somewhat larger but much fainter and ill-defined brown patch at the tip.

The great variation in the size of the scutellar spines is noteworthy.

Genus PHYTALMIA.

Phytalmia Gerstaecker, Stett. Ent. Zeit. xxi. p. 169 (1860); Hendel, Gen. Ins., Pyrgotinae, p. 3 (1908).

70. PHYTALMIA CERVICORNIS.

Phytalmia cervicornis Gerstaecker, Stett. Ent. Zeit. xxi. p. 173, pl. 11. fig. 4 (1860); de Meijere, Nova Guinea, ix. p. 363 (1913).

Elaphomyia cervicornis Saunders, Trans. Ent. Soc. v. pl. 12. figs. 4 & 5 (1861).

4 ♂, 1 ♀. Mimika River, July and August 1910.

One of the four males has the antlers very much shorter than usual, but if one may judge from somewhat analogous variation in other flies this can only be an individual character. Another male has absolutely clear wings, but is perfectly normal structurally and, so far as I can judge, is simply an immature specimen.

71. *PHYTALMIA*? *WOLLASTONI*, sp. n. (Pl. XXXVIII. figs. 8, 8 a.)

3 ♀. Mimika River, July and August 1910. (*Type of the species.*)

Closely resembles *P. cervicornis* Gerst. in coloration, but differs widely in the shape of the abdomen, in the venation, and in the chaetotaxy of the thorax.

Head as in *P. cervicornis*, except that the arista is almost as hairy on the under- as on the upperside. *Thorax* less narrowed in front than in *P. cervicornis*, and provided with two narrow dorsal longitudinal blackish lines, running from the front margin two-thirds of the length of the mesonotum. Two notopleural and two supra-alar bristles, all equally well developed; no sternopleural or humeral bristles. Scutellar bristles two, strong and widely divergent. *Abdomen* shorter than in *P. cervicornis*, widest at the apex of the first segment, which widens out evenly from the base to the apex, and is barely twice as long as the second segment. Second segment rather broader than long, third and fourth about equal in length and breadth; ovipositor similar to that of *P. cervicornis*, but broader at the base and rather shorter. *Legs* much shorter than in *P. cervicornis*, entirely light brown except for the last four joints of all the tarsi, which are blackish. *Wings* much resembling those of *P. cervicornis*, both in colour, shape, and venation, but the vein closing the anal cell is vertical and slightly sinuous, instead of being straight and inwardly oblique, and there is a narrow deep brown border on the wing-margin extending from the stigma to the apex. *Halteres* ochreous brown.

Length of body (including ovipositor) 12.5 mm., of wing 9 mm.

Subfamily Trypaniinae (*Trypetinae*).

Genus DIPLOCHORDA.

Diplochorda Osten-Sacken, Ann. Mus. Genova, xvi. p. 484 (1880); Hendel, Gen. Ins., Pyrgotinae, p. 4 (1911).

72. *DIPLOCHORDA* *CONCISA*.

Elaphomyia brevicornis Saunders (part.), Trans. Ent. Soc. London, n. s. v. p. 415 (1861).

Dacus concisus Walker, Proc. Linn. Soc. London, v. p. 252 (1861).

Dacus turgidus Walker, Proc. Linn. Soc. London, viii. p. 134 (1865).

Diplochorda turgida Osten-Sacken, Ann. Mus. Genova, xvi. p. 487 (1880).

1 ♀. Mimika River, July 1910.

1 ♀. Wataikwa River, August 1910.

In both these specimens the middle thoracic stripe is narrowed before the middle, but not interrupted as it is in Walker's type of *D. concisus*; nevertheless, I do not think the specific identity can be in doubt. Osten-Sacken was evidently quite correct in the synonymy which he gave for the species, but unfortunately, whether by intention or oversight, he did not adopt the oldest name for it.

The species was previously represented in our collection by the types of Saunders and Walker from Mysol, Salawatti, and New Guinea.

73. DIPLOCHORDA MYRMEX.

Diplochorda myrmex Osten-Sacken, Ann. Mus. Genova, xvi. p. 488 (1880).

1 ♀. Mimika River, July 1910.

This species was previously known only from the type, a female from Katau, New Guinea, which, according to Osten-Sacken's description, differs from the present specimen in having the thoracic stripes interrupted, and has also slightly different head-markings.

Genus ORTALOPTERA, gen. nov.

General habitus similar to *Dacus* and *Diplochorda*, but differs considerably from either genus in the chaetotaxy of the thorax and in the venation.

Head about one-third as broad again as it is long; eyes a little more than two-thirds as long as the head; frons parallel-sided, about two-fifths as wide as the whole head; face a little swollen in the middle below the antennæ, below this swelling it is concave; a pair of sharp outwardly oblique keels a little below the eyes and underneath the antennæ. *Antennæ* as long as the face, but being divaricate they do not reach the oral margin; third joint about four times as long as broad, pointed; arista with long hairs on the upperside, and also on the apical part of the lower side; the antennæ placed about the middle of the length of the head. *Bristles**: inner *vt* strong, parallel; *prt* very small, parallel, forwardly directed; *oc* absent; *or* 1+1, lower pair directed inwards; genal moderate; occipital row short, thin, black, pointed.

Thorax not much longer than broad, slightly narrowed in front; scutum moderately convex; scutellum flattened, triangular, with slightly truncate tip. *Bristles*: *scp* normal; *dc* 1 rather small and weak; *prsc*, *hm*, *prst*, and *pp* absent; *npl*, *sa*, and *mpl* normal, strong; *pt* and *st* weak, but distinct; basal and apical scutellar pairs equally well developed, both divergent.

Abdomen less than half as long again as the thorax, with six visible dorsal segments; it is strongly convex, broadest at the apex of the second segment, and much contracted

* The abbreviations are those adopted by Prof. M. Bezzi in his paper on Indian Trypanoids (Mem. Ind. Mus. iii. no. 3, 1913).

at the base and apex; first segment rather more than twice as long as the second; second, third, fourth, and sixth about equal in length; fifth barely half as long as the fourth; ovipositor short, pointed, corneous.

Legs moderately stout, front-femora somewhat thickened, without any ventral bristles; middle tibiæ with a small but distinct preapical spine.

Wings strongly pictured, in a manner somewhat recalling *Cleitamia*. Costal spine absent, all the veins bare. Auxiliary vein (Sc) distinct except at its extreme tip; first vein (R_1) reaching costa about the middle of the wing, very slightly beyond the small cross-vein; second vein (R_{2+3}) wavy; third vein (R_{4+5}) somewhat arched, almost parallel with the fourth; fourth vein (M) slightly curved beyond the hind cross-vein; sixth vein reaching the hind-margin; small cross-vein far before the middle of the discal cell; hind-cross-vein slightly outwardly oblique and curved; basal cross-vein inwardly oblique; anal cross-vein slightly concave; anal cell considerably drawn out below.

The specimen on which this genus is founded is very difficult to place. The general shape is very suggestive of *Dacus*, but the venation and the presence of a sternopleural bristle exclude it from the *Dacus* group; the wing-pattern and venation are, on the other hand, strongly reminiscent of the Ortalinæ, but the presence of lower fronto-orbital bristles prevent its location in that subfamily; the presence of a preapical bristle on the middle tibiæ might perhaps be taken to indicate a connection with the Sciomyzinæ, but this is not supported by other characters, and as the preapical tibial bristle is also present in *Rioxa formosipennis* there is no need on its account to exclude *Ortalopectera* from the Trypetinæ.

74. ORTALOPTERA CLEITAMINA, sp. n. (Pl. XXXVIII. figs. 9, 9 a.)

1 ♀. Mimika River, Aug. 1910. (*Type of the species.*)

Head dull light ochreous-brown, with some darker mottling on the vertex; antennæ ochreous, the apex of the third joint darker; palpi ochreous. *Thorax* and *abdomen* uniformly dull black. *Legs* blackish-brown, the front-femora, the base and apex of the middle and hind-femora, the apex of the middle tibiæ, and the greater part of the middle and hind-tarsi more reddish-brown. Bristles and pubescence of the whole insect black, except on the undersides of the tarsi, where the pubescence is reddish. *Wings* with dark brown markings as shown in the figure; these markings are reminiscent of the Ortalid genus *Cleitamia* and also of the newly described Trypetid *Callistomyia Bezzi*. *Halteres* yellow.

Length of body 10 mm., of wing 8 mm.

Genus RIOXA.

Rioxa Walker, Proc. Linn. Soc. London, i. p. 35 (1857); Bezzi, Mem. Ind. Mus. iii. no. 3, p. 111 (1913).

The first two species mentioned diverge from Bezzi's definition of the genus *Rioxa* in having the second vein wavy: the third has a widely different type of wing-marking.

75. RIOXA sp.

Cf. *Acanthoneura sexguttata* de Meijere, Nova Guinea, ix. p. 364 (1913).

1 ♂. Utakwa River, March 1913.

The single specimen is somewhat damaged, and I therefore refrain from naming it. The wing-pattern agrees closely with de Meijere's figure, but the thorax has three narrow longitudinal black lines on the scutum and one black spot (not three) just above the pleuræ.

76. RIOXA FORMOSIPENNIS.

Rioxa formosipennis Walker, Proc. Linn. Soc. London, v. p. 252 (1861); de Meijere, Nova Guinea, v. p. 93 (1906).

Acanthoneura formosipennis de Meijere, Nova Guinea, ix. p. 365 (1913).

1 ♀. Iwaka River, Feb. 1911.

1 ♀. Utakwa River, 3000 ft., Jan. 1913.

77. RIOXA FLAVA, sp. n. (Pl. XXXVIII. figs. 10, 10 a.)

1 ♀. Mimika River, July 1910. (*Type of the species.*)

Head, including the whole of the antennæ, light ochreous-brown or brownish-yellow, the palpi darker brown; *pvt* well developed, parallel; *or* 2+2; arista plumose to the base on both the upper- and undersides; the antennæ considerably shorter than the face; all the bristles yellowish. *Thorax* uniformly yellowish-brown with yellowish pubescence and bristles. *Abdomen* orange-brown with a pair of small roundish black spots on the sides of the fourth segment; pubescence yellowish. *Legs* almost uniformly ochreous, the extreme tips of the tarsal joints darkened; pubescence yellowish. *Wings* slightly yellowish-tinged; stigma yellow, dark brown apically; a narrow dark brown border round the apical margin of the wing from just beyond the stigma to the termination of the fourth vein; a dark brown cloud along the lower margin of the fifth vein and also over the sixth vein. Second vein nearly straight; first vein bristly to the tip; third vein with scattered bristles nearly to the tip; fifth vein bare; no costal spine. Small cross-vein placed well before the middle of the discal cell, hind-cross-vein slightly sinuous. *Halteres* ochreous.

Length of body 8.5 mm., of wing 6.5 mm.

This species is so distinct that it cannot be compared with any which has previously been described. The wing-marking recalls that of a *Dacus* or *Bactrocera*.

Subfamily Lonchæinæ.

Genus LONCILEA.

Lonchea Fallen. Dipt. Succ. Ortalidæ, p. 25 (1820).

78. LONCILEA sp.

Cf. *Lonchea metatarsata* Kertész, Term. Füz. xxiv. p. 83 (1901).

1 ♀. Mimika River, July 1910.

Agrees with Kertész's description except in having a smooth frons.

L. metatarsata was described from Friedrich Wilhelmshafen, New Guinea.

Subfamily Lauxaniinæ.

Genus GRIPHONEURA.

Griphoneura Schiner, Novara Reise, Dipt. p. 281 (1868).

79. GRIPHONEURA TESTACEIPES.

Griphoneura testaceipes Kertész, Term. Füz. xxiii. p. 398 (1900); de Meijere, Nova Guinea, ix. p. 378 (1913).

2 ♂. Mimika River, July 1910.

The types are from Paumotu River and Dilo; de Meijere records the species from the Lorentz River.

Genus LAUXANIA.

Lauxania Latreille, Hist. Nat. Crust. Ins. xiv. p. 390 (1804).

80. LAUXANIA sp.

Cf. *Lauxania (Sapromyza) nigripennis* de Meijere, Nova Guinea, ix. p. 381 (1913).

1 ♂. Utakwa River, 2500-3000 ft., Dec. 1912.

Agrees with de Meijere's description, except that the femora are blackish instead of "braungelb." The types were from Bivak I. and "Rivier-kamp."

PLATE XXXVIII.

PLATE XXXVIII.

- Fig. 1. *Tipula de-meijerei*, sp. n., p. 393.
2 *a, b.* *Ptilocera violacea*, sp. n. Antennæ of ♀ (*a*) and ♂ (*b*), p. 394.
3. *Chrysopilus binoculatus*, sp. n., p. 397.
4. *Maira wollastoni* Austen, sp. n., p. 398.
5. *Promachus noscibilis* Austen, sp. n., p. 403.
6. *Dissoptera pollinosa*, gen. et sp. n., p. 410.
7. *Plesiocyptera divisa* Walker, p. 412.
8. *Phytalmia ? wollastoni*, sp. n. 8 *a.* Head in front view, p. 418.
9. *Ortaloptera cleitamina*, gen. et sp. n. 9 *a.* Head in front view, pp. 419, 420.
10. *Rioxa flava*, sp. n. 10 *a.* Head in front view, p. 421.